

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to FIG. 6D, where reference number "640" is changed to "642".

Attachment: Replacement sheet
 Annotated sheet showing changes

REMARKS

Reconsideration of this Application is respectfully requested.

Claims 1-72 are pending in the application, with claims 1, 35-37, and 72 being the independent claims. The specification, FIG. 6D, and claims 1-15, 17-27, 30-70 and 72 are amended.

Based on the above amendments and following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Objection to the Oath/Declaration

In the Action on page 2, section 2, the declaration is objected to as not identifying the mailing address of each inventor. A substitute declaration is concurrently submitted, and Applicants respectfully request that the objection be withdrawn.

Objection to the Specification

In the Action on page 2, section 3, the specification is objected to as missing a listing for Figure 6D in the Brief Description of the Drawings. The specification is amended to include such listing, and Applicants respectfully request that the objection be withdrawn.

Objections to the Drawings

In the Action on page 3, sections 4-6, the drawings are objected to as including reference numbers not mentioned in the description, and as using reference number 640 to designate two items. The specification and drawings are amended to bring the drawings into compliance, and Applicants respectfully request that the objection be withdrawn. Various other amendments have been made to claims 1-15, 17-27, and 30-70 for formal reasons, and are not made in response to a prior art rejection, are not believed to narrow claim breadth, are believed not to even more clearly claim Applicants' invention, and are fully supported by the Specification.

Objections to the Claims

In the Action on page 4, section 7, claims 14, 22, 30, 32, 35 and 37 are objected to due to various informalities. Applicants have amended these claims to correct the informalities, and Applicants respectfully request that the objection be withdrawn.

Rejections under 35 U.S.C. § 112

In the Action on pages 4-5, sections 8-9, claims 8-34 are rejected under 35 U.S.C. 112 second paragraph as being indefinite for various reasons. Claims 8, 18, 20, 21, and 24 are amended to correct antecedent basis and to remove the allegedly vague phrases. Applicants respectfully submit that these claims as amended are not indefinite and request that the rejection be withdrawn.

Rejections under 35 U.S.C. § 101

In the Action on pages 5-6, sections 10-11, claims 1-34 and 36 are rejected as being allegedly directed to non-statutory subject matter. Applicants respectfully traverse the rejection.

Claims 1 and 36 are amended to add components that produce a tangible result. Applicants respectfully submit that the claims are directed to statutory subject matter and request that the rejection be withdrawn.

Rejections under 35 U.S.C. § 102

In the Action on pages 6-16, sections 12-13, claims 1-8, 12, 15-44, 48, and 51-72 are rejected as being anticipated by U.S. Patent No. 6,560,569 to Abu El Ata (hereinafter “‘569”). Applicants respectfully traverse the rejection.

‘569 is directed generally to an information design system and not to a decision support system for evaluating supportability of alternative system architecture designs.

As amended, claim 1 now even more clearly recites a decision support system for evaluating supportability of alternative system architecture designs comprising: ***an analytic hierarchy process (AHP) model comprising a plurality of supportability attributes at a first level***, wherein said plurality of supportability attributes comprises: a ***commonality attribute***; a ***modularity attribute***; a ***standards based attribute***; and a ***reliability, maintainability, testability (RMT) attribute***; an analysis module, adapted to assign relative weights to each supportability attribute on said first level and to

perform pair-wise comparisons of said plurality of attributes on said first level; an evaluation module, adapted to assign a global priority weight (GPW) to each of a plurality of alternative system architecture designs and to compare the values of said GPWs of said plurality of alternative system architecture designs; and a user interface, adapted to display said GPWs to a user and to receive a selection of a preferred system architecture design based on said comparison.

‘569 fails to teach at least five elements of claim 1.

First, ‘569 fails to teach *an analytic hierarchy process (AHP) model comprising a plurality of supportability attributes* at a first level. Instead, ‘569 teaches an information system modeled in a top/down approach, having a top level of business management and process; middle levels of application design, management, and implementation; and system/network/hardware management at bottom levels. ‘569, col. 8, lines 56-63. The Action aligns the top/down approach to modeling an information system of ‘569 with the AHP model of claim 1. Applicants respectfully assert that this alignment is incorrect. The AHP model of claim 1 provides a hierarchy of supportability attributes that allows comparison of the supportability attributes at each level of the hierarchy. Specification, paragraph 176. In contrast, the information design system of ‘569 mathematically models business management and process at one level; application design, management and implementation below the business level; and system/network/hardware management at a bottom level. None of these levels is related to the consideration of supportability of a system architecture design. Therefore, ‘569 fails to teach an AHP comprising a plurality of supportability attributes.

Further, the model information systems of ‘569 are assessed from performance metrics, not from supportability attributes. ‘569, e.g., col. 1, lines 58-63. The performance metrics of ‘569 include an elongation factor, an aging ratio, an efficiency ratio, and a degradation ratio. ‘569, col. 2, lines 39-41.

Second, ‘569 fails to teach a *commonality attribute*. The Action aligns the application architecture layer of ‘569 with the commonality attribute of claim 1. This alignment is incorrect. The commonality attribute of claim 1 may be used, for example, to assess the extent to which a system architecture design uses “common (and familiar) physical, functional, and operational elements within the system being designed and evaluated. As such, the focus of the commonality

attribute is to reduce the total number of unique system elements to the extent possible.” See specification, paragraph [0074]. ‘569 has no teaching or suggestion of a commonality attribute.

Third, ‘569 fails to teach a ***modularity attribute***. The Action aligns the application architecture layer of ‘569 with the modularity attribute of claim 1. This alignment is incorrect. The modularity attribute of claim 1 may allow assessment of alternative system architectures based on the extent to which components of the architecture may be replaced or upgraded with minimal impact to other components. See, e.g., specification, paragraphs 140 or 146. ‘569 has no teaching or suggestion of a modularity attribute.

Fourth, ‘569 fails to teach a ***standards based attribute***. The Action aligns the operating environment layer of ‘569 with the standards based attribute of claim 1. This alignment is incorrect. The standards based attribute of claim 1 may allow assessment of alternative system architectures based on compliance with industry standards and/or internal company standards and guidelines. See specification, paragraph [0099]. ‘569 has no teaching or suggestion of a standards based attribute.

Fifth, ‘569 fails to teach a ***RMT attribute***. The Action aligns the application implementation layer of ‘569 with the RMT attribute of claim 1. This alignment is incorrect. The RMT attribute of claim 1 may include considerations such as the ability of the system to operate for a length of time, under specified operational conditions, without failure, and a system’s redundancy and reconfigurability. Specification, paragraph 118. The RMT attribute may further include considerations such as the ease and cost with which a failed system or system functionality can be restored. Specification, paragraph 124. ‘569 has no teaching or suggestion of a RMT attribute.

Claims 2-8,12,15-34 depend from claim 1, and are allowable at least for being dependent from an allowable claim.

Claims 35-37, and 72 recite similar elements to those discussed above regarding claim 1, and are allowable for at least the same reasons given above with respect to claim 1.

Claims 44 and 48 depend from claim 37, and are allowable at least for being dependent from an allowable claim.

Rejections under 35 U.S.C. § 103

In the Action on pages 16-18, sections 14-15, claims 9-11, 13, 14, 45-47, and 50 are rejected as being unpatentable over '569 in view of U.S. Patent No. 5,815,715 to Küçükçakar (hereinafter "'715"). Applicants respectfully traverse the rejection.

Claims 9-11, 13, and 14 depend from claim 1, which is allowable as discussed above.

Claims 45-47 and 50 are dependent from claim 37, which is allowable as discussed above. Claims 9-11, 13, 14, 45-47, and 50 are therefore allowable at least for being dependent from an allowable claim.

Further, the combination of '715 with '569 fails to overcome the deficiencies of '569 with respect to claims 1 and 37. '715, alone or in combination with '569, fails to teach or suggest an analytic hierarchy process (AHP) model comprising a plurality of supportability attributes at a first level, wherein said plurality of supportability attributes comprises: a commonality attribute; a modularity attribute; a standards based attribute; and a reliability, maintainability, testability (RMT) attribute. '715 appears to teach, generally, a computer system for designing a computing system product. '715, Abstract. A design is evaluated according to acceptance criteria, such as cost and performance. '715, col. 2, lines 43-58. There is no discussion in '715 of an AHP model or of supportability attributes, such as the attributes recited in claim 1. Therefore, the combination of '715 with '569 fails to teach or suggest an analytic hierarchy process (AHP) model comprising a plurality of supportability attributes at a first level, wherein said plurality of supportability attributes comprises: a commonality attribute; a modularity attribute; a standards based attribute; and a reliability, maintainability, testability (RMT) attribute.

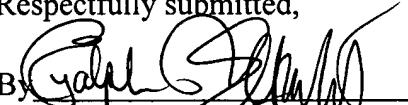
Therefore, claims 1 and 37, as well as the dependent claims depending therefrom, are believed allowable over the applied references.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

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Respectfully submitted,


By _____

Caroline J. Swindell

Registration No.: 56,784

Ralph P. Albrecht

Registration No.: 43,466

VENABLE LLP

P.O. Box 34385

Washington, DC 20043-9998

(202) 344-4000

(202) 344-8300 (Fax)

Attorney/Agent For Applicant

Attachments

-- ANNOTATED SHEET --

U.S. Appl. S.N. 09/864,302

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Title: SUPPORTABILITY EVALUATION OF

SYSTEM ARCHITECTURES

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642

FIG. 6D

FIG. 6D is a screenshot of a software interface for the System Evaluation of Architectures (SEA) tool. The interface includes a menu bar with 'File', 'Edit', 'Delete', 'Incidence', 'Help', and 'Preliminary'. A toolbar on the left contains icons for 'Best Fit', 'Modular', 'Common', 'Standard', 'RMT', 'Matrix', 'Questionnaire', 'Graphics', 'Verbal', and 'Matrix'. A status bar at the bottom shows 'RBC'.

Annotations:

- With respect to GOAL:** A box containing the text 'MODULAR: Modular' and 'COMMON: Common'.
- 5.0 times (STRONGLY) more IMPORTANT than:** A box containing the text 'COMMON: Common'.

Best Fit Matrix:

Best Fit	COMMON	STANDARD	RMT
MODULAR	5.0	0.0	0.0
COMMON	0.0	0.0	0.0
STANDARD			

Supportability Evaluation Matrix:

	2	Moderate	Strong	V. Strong	8	Extreme
2	Equal	4	6	8	10	12
Moderate	Abandon	Invest	Enter	Product	Structure	Link Element
Strong	Calculate	Start	Stop	Break	Reset	Other
V. Strong	Yield	End	Stop	Break	Reset	Other
8	Start	Stop	Break	Reset	Other	
Extreme						

FIG. 6D